

WHAT IS CLAIMED IS:

1. A system for providing wireless communication within a local area network (LAN) onboard a mobile platform, said system comprising:

at least one seat transceiver located in a passenger seating area;

at least one passenger service unit (PSU) located above the passenger seating area, said PSU comprising at least one PSU transceiver; and

a direct path infrared (IR) signal transmission link between said seat transceiver and said PSU transceiver, said direct path IR transmission link configured to transmit data between said seat transceiver and said PSU transceiver.

2. The system of Claim 1, wherein said seat transceiver is mounted on a top portion of a display unit attached to a passenger seat.

3. The system of Claim 1, wherein said PSU transceiver is configured to have a direct path IR signal transmission link with a plurality of seat transceivers, thereby providing a redundant optical signal path to adjacent said seat transceivers.

4. The system of Claim 4, wherein said plurality of seat transceivers are interconnected with inter-seat wiring, such that a blockage of

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said direct path IR signal transmission to one of said plurality of seat transceivers does not result in a loss of transmission of data between said PSU transceiver and said seat transceiver having the direct path IR signal transmission blocked.

5. The system of Claim 1, wherein said seat transceiver configured to connect to at least one interface, said interface configured for connection with a client system using at least one of a Ethernet RF-45 connection, a firewire connection, and a USB connection.

6. The system of Claim 1 further comprising a server configured to exchange communication with said PSU.

7. The system of Claim 6 wherein said PSU configured to filter data packets from a signal transmitted between said server and said PSU prior to transmitting the direct IR signal to said seat transceiver, such that an entire amount bandwidth of the signal between said sever and said PSU is not transmitted to said seat transceiver.

8. The system of Claim 6 wherein said server further configured to exchange communication with a ground station via a satellite communications link, said ground station configured to access a terrestrial Internet.

9. The system of Claim 8 wherein said server further configured to provide Internet data service to said client system utilizing the satellite communication link to said ground station.

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10. A method for providing wireless communication within a local area network (LAN) located on a mobile platform, wherein the LAN includes at least one seat transceiver located in a passenger seating area, and at least one passenger service unit (PSU) including a PSU transceiver for exchanging communications with the seat transceiver, said method comprising:

locating the PSU above the passenger seating area;

providing a direct path IR signal transmission link between the seat transceiver and the PSU transceiver; and

transmitting data between the seat transceiver and the PSU transceiver using the direct path IR transmission link.

11. The method of Claim 10, wherein providing a direct path IR transmission link, comprises mounting the seat transceiver on a top portion of a display unit attached to a passenger seat.

12. The method of Claim 10, wherein providing a direct path IR transmission link comprises:

providing at least one interface connected to the seat transceiver; and

connecting a client system to the interface using at least one of a Ethernet RF-45 connection, a firewire connection, and a USB connection.

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13. The method of Claim 10, wherein transmitting data comprises:

providing a direct path IR transmission link to a plurality of seat transceivers interconnected with inter-seat wiring, thereby providing a redundant optical path to adjacent seat transceivers;

transmitting data from one of the plurality of seat transceivers to another of the plurality of seat transceiver, via the inter-seat wiring, when the direct IR link to one of the plurality of seat transceivers is blocked.

14. The method of Claim 10, wherein the LAN further includes a server for exchanging communication with the PSU, and wherein transmitting data comprises filtering data packets from a signal transmitted between the server and the PSU prior to transmitting the direct IR signal to the seat transceiver, such that an entire amount of bandwidth of the signal between the sever and the PSU is not transmitted to the seat transceiver.

15. The method of Claim 14, wherein the server utilizes a satellite communication link to exchange communication with a ground station capable of accessing a terrestrial Internet, and wherein transmitting data comprises utilizing the satellite communication link to provide Internet data service from the terrestrial Internet to the client system.

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16. A method for providing wireless communication within a local area network (LAN) located on a mobile platform, wherein the LAN includes at least one seat transceiver located in a passenger seating area, at least one passenger service unit (PSU) including a PSU transceiver for exchanging communications with the seat transceiver, and at least one server for exchanging communications with the PSU, said method comprising:

locating the PSU above the passenger seating area;

providing a direct path IR signal transmission link between the seat transceiver and the PSU transceiver;

providing a redundant optical signal path to reduce signal interference; and

providing at least one interface connected to the seat transceiver, such that a passenger can connect a client system to the interface port and thereby access the LAN.

17. The method of Claim 16, wherein providing a direct path IR transmission link comprises mounting the seat transceiver on a top portion of a display unit attached to a passenger seat.

18. The method of Claim 16, wherein providing a redundant optical signal path comprises:

providing a direct path IR transmission link to a plurality of seat transceivers interconnected with inter-seat wiring, thereby providing a redundant optical path to adjacent seat transceivers;

transmitting data from one of the plurality of seat transceivers to another of the plurality of seat transceiver, via the inter-seat wiring, when the direct IR link to one of the plurality of seat transceivers is blocked.

19. The method of Claim 16, wherein providing a direct path IR transmission link comprises:

transmitting data between the seat transceiver and the PSU transceiver using the direct path IR transmission link;

providing at least one interface connected to the seat transceiver; and

connecting a client system to the interface using at least one of a Ethernet RF-45 connection, a firewire connection, and a USB connection.

20. The method of Claim 19, wherein the server utilizes a satellite communication link to exchange communications with a ground station capable of accessing a terrestrial Internet, and wherein transmitting data comprises:

utilizing the satellite communication link to provide Internet data service from the terrestrial Internet to the client system; and

filtering data packets from a signal transmitted between the server and the PSU prior to transmitting the direct IR signal to the seat transceiver, such that an entire amount of bandwidth of the signal between the sever and the PSU is not transmitted to the seat transceiver.

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